RECORDS # PAST

VOL. XI



PART V

BI-MONTHLY

SEPTEMBER-OCTOBER 1912

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VINDONISSA-A VILLAGE ARCHAEOLOGICAL TRUST

ETWEEN Basel and Zürich, at the junction of three rushing streams, the Aare, the Reuss, and the Limmat, lies the little town of Brugg. A chance observer might have wondered what possible attraction could have brought thither the travelers who stepped from a train to its railroad platform late in a dripping afternoon of last November. The chief interests of Brugg are centered in a Hospital for the Insane and in hunting. A stranger who enters the town without a gun-case as a sign of his out-door calling is naturally regarded as a candidate for the other, and more in-door, activity. The deadly alternative then speedily works his undoing. Let suspicion once rest upon him, and my hosts of "The Red House" and the "Little Horse" will turn a regretful but firm cold shoulder to his requests for entertainment. He will find that every room in nearly every hotel has been preëmpted by the "Jaeger," until he is fain to believe that the great stone, window-barred building that looms up from Königsfeld may be the "Gasthaus" of last resort for him, sane if possible, but insane if necessary. Such an issue, however, is not readily to be accepted by a traveler with a family on his hands. Muddy and foggy Brugg finally yielded its choicest gem, the Hotel Füchsli. To be sure the name savored of the "Jaeger" industry, and the influence of the other was shown in the leather-padded doors of our isolated suite. But these things did not matter, for here was spotlessness combined with "central-heating," —the continental lukewarm water system, called "central" doubtless from the fact that in a given circle, in which the furnace represents the center and the house the circumference, the center is always heated. Thus far no archæology. Even the "männerchor" in the restaurant below gave us a prosaic modern substitute for "Lalagen dulce loquentem," lulling us to sleep with

"Marie, Marie, was sagst Du noch? Marie, Marie, was machst Du doch?"

Yet, strange as it may seem, the cause and aim of the visit was an archæological one. At Vindonissa, now Windisch, a hamlet near Brugg, the Romans for centuries had a stronghold, of great importance in this region which is but a few miles from the Rhine and which marks the union of the three river-valleys. In this quiet spot, where modern philanthropy has set up its institution, the ancient business was war. The Director of the Hospital for the Insane, Dr. Fröhlich, divides his time between caring for latter-day degenerates and unearthing the remains of the Romans. He has the unique distinction of being an alienist by profession and an archæologist by avocation. It is easy to approach a man from the side of his avocation. Armed with an introduction from Dr. Leonhard of the German National Limes Commission the writer (after it became plain that he was not a candidate for the violent ward) was cordially welcomed by Dr. Fröhlich,

and from that moment his way was clear.

The Roman *castellum* was situated on a high bluff overlooking the valley of the Aare. It is difficult to distinguish between the natural and the artificial bulwarks; yet a person standing on the other side of the river is at once struck by the fact that at one time there must have been made here immense earth-constructions of some sort. It is surprising that, in spite of this fact, and also in spite of the fact that Roman remains were constantly being run upon in this place, it was not until 1905 that it was established that this was the site of the Roman castellum known to have existed somewhere in the vicinity, and that as late as 1000 a Swiss archæologist could soberly assert that it was not placed here but in the very heart of Brugg. It is easy to draw conclusions after the event. But, given the knowledge that a Roman fort once existed in the vicinity, and given, next, a level sweep of land at Windisch, bounded by steep and regular embankments, which look for all the world like modern earthworks, and it would not seem to require the services of an antiquarian Sherlock Holmes to prove that this was the site, even in the lack of excavations to expose the substructure and walls.

The history of Vindonissa is an interesting one, but too long to recount in all its details. The oldest inscription from Vindonissa, a fragment, reads: "Tiberius Cæsar Imperator, Divi Augusti Filius." The hundreds of coins and pieces of pottery that have been discovered strengthen the evidence of this inscription that the fort was established in the reign of Tiberius, probably early in his reign. A Claudius inscription shows the presence here in 47 A.D. of the 21st legion. The 13th was quartered here before that time. The numerous stamps of the 11th legion, "Claudia pia fidelis," show that it was on the ground from about 83 to 100 A.D. After its departure the Romans had other business on the right bank of the Rhine, and the walls of Vindonissa fell into decay. Not until about the year 260 was it again a



AMPHITHEATER AT WINDISCH

garrisoned center, and then because the Romans, pressed by the Germans, fell back on the old Augustan line of fortifications. But whether they rebuilt the old fort or built another elsewhere in the neighborhood has not yet been determined. The coins found in the amphitheatre, evidently an "amphitheatrum castrense," extend to the year 400 and then suddenly cease. It will be recalled that it was in the year 406 that Rome, threatened by the Gauls, withdrew her troops from this region.

Of course, the tradition of Vindonissa and of the Roman occupation continued, in a more or less hazy way, for centuries. But by the beginning of the XIV century it was practically forgotten, though the peasant's plow still turned up remnants of walls and of Roman utensils. There was no marked historical interest in the place until the XVI century; but to Ludwig von Haller, in the early years of the XIX century belongs the real credit of having relocated the site of the castellum. Had his conclusions been given the weight that they deserved, there would not have been reserved for our time the doubtful distinction of having positively identified a spot which was indicated both by investigations, feeble though they were, and by a physical contour fairly pleading for recognition.

The possession of hidden treasures of the past is a great responsibility. When this falls to the lot of a village community, the prospects are not bright for a swift and full cash payment from the local debtor to the great creditor, the world of culture. Even if the first requisite, enthusiasm, is met, the second, necessary funds, is likely to be lacking. In such cases it would be better in some respects for the nation to shoulder the responsibility. But that is not in the natural order of things, since the local interest of a few individuals must be the germ of a wider interest, and their civic pride does

not permit them to go too far toward giving up personal control. The result may be unfortunate so far as immediate returns are concerned, but it has the advantage of restocking the archæological ranch. There is something to be said for a process that turns village merchants into keen historians, and unites local doctors, lawyers, and teachers in a common fad for

the unearthing of Roman pottery.

In this light it is interesting to study the progress of events at Brugg. After years of haphazard, though often valuable finds, the "Historische Gesellschaft" of Brugg was founded in 1897 by a few enthusiasts, the name being changed later to the "Gesellschaft pro Vindonissa." Ridiculed at first, with small means at its command, hampered by private ownership of land-tracts, it has gone steadily ahead, has just erected a fine museum, and



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has aroused the interest of the country to the extent of a yearly grant from the Swiss parliament of the not too demoralizing sum of 1000 francs. All honor to the spirit of Brugg, and to those leaders, Fröhlich, Heuberger, and Eckinger, who pack the few leisure hours left them after their professional work with this self-sacrificing service in the interest of knowledge.

But, when all is said, as one views the magnificent possibilities at Windisch, and compares them with the feeble powers of the "Gesellschaft pro Vindonissa," he feels that it is almost as if the Panama Canal contract were being handled by the local Cement and Lumber Company of a New England town. Here is the great plain of the castellum proper. In spots the "Gesellschaft" has opened it—when some landowner, about to erect a new building, magnanimously gave the Society the privilege of breaking the ground for it. Then substructions would be unearthed and relics would be



THE MUSEUM-BRUGG

found, the former to be carefully described in publications, and the latter to be preserved in the museums of Brugg or Zürich. The earth would then be tenderly replaced, save where the new building covered its own cellar, and the eye of man would behold the ancient in that particular spot no more. In a few cases the Society has been bold enough to make an exception, to buy a strip of land and to leave a piece of wall or a gate exposed and sufficiently reconstructed. One can follow the Roman water-mains, and they are in use today. But, for the most part, this plain, every inch of which is rich in the lore of the past, lies untouched by the pick of the investigator. Meanwhile private dwellings and the "Hospital for the Insane" are gradually encroaching.

But the romance of this account is still to be related. Going to the edge of the embankment in the rear of the Hospital grounds and pointing to an extensive grass-covered mound below, Dr. Fröhlich remarked: "Here is the 'Schutthügel,' the camp dumping-ground." About 6 years ago he had accidentally discovered it. Luckily he had among his patients an old man whose mental weakness had taken the form of a mania for digging. From that day to this the latter has been picking at the dump, with almost every shovelful presenting Dr. Fröhlich and the "Gesellschaft pro Vindonissa" with some of the most wonderfully preserved Roman remains yet discovered. Naturally one does not expect to find in a soldier's dump-heap articles of extraordinary value. But often the most commonplace objects are the most valuable tokens of ancient life. The dryness of the earth in the mound and its peculiar location have prevented the usual rust and decay. Here are bronze fibulæ as bright as if used yesterday, and so sound that they could be used today; coins, legible without being polished; pieces of leather

jerkins, which, when soaked in water, are as strong and pliable as if newly-tanned; nails that could be used in a modern building; bricks, with the stamps of the legions; pieces of pottery with the owner's private mark scratched on the bottom; tools of every description in perfect order; chains and other jewelry; shoes with the hobnails still in the soles—in fact almost every imaginable article that the ruck of centuries might be expected to contain. Yet only a small hole has been made in the hill. Perhaps it is not to be wondered at that, looking at the pit of riches, the writer sighed for even an hour and carte blanche to use his spade. On one such occasion the aged operator came sauntering along. In answer to the question "How many workmen dig here?" he replied—"Ich einzig" ("I'm the whole thing"). "Have you done anything today?" "No; but I shall work tomorrow, and next week I'm going to get 50 pieces."

It is a temptation to write also of the other attractions that Brugg-Windisch offers to the student of Rome; of the amphitheater, near the castellum, that seated about 10,000 persons, the excavation of which has been a memorable piece of work on the part of the Society, of the site of the gladiatorial school near by, identified and partially excavated, and then carefully covered up again; of the "Black Tower" at the bridge over the Aare. But the reasonable bounds of a single article must not be transgressed. With honor, therefore, to the men of Brugg for what they have done in the face of difficulties, with a genial farewell to our courteous hosts, who have played the comrade to strangers, yet with a touch of envy mingled with impatience, we take leave of that close corporation, "The Vindonissa Gesellschaft, Limited," and of its aged working agent, the gentle madman of the pit. Henry D. Wild.

Locarno, Switzerland, December 4, 1911.

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EXCAVATIONS OF AN IMPERIAL VILLA NEAR NAPLES.—In an address before the Society of Antiquaries, (London,) Mr. R. T. Günther gave an account of researches on the site of the Imperial Villa at the end of Posilipo, near Naples. At the back of a small niche in the ruins a Roman mural glass mosaic was found. It renders in a charmingly natural manner a white bird flying over some plants grouped behind a yellow trellis, the whole inlaid in a background of blue cobalt-stained glass mosaic. "The borders are ornamented with cockle-shells and spirally twisted glass rods, and are coeval in style with the mosaic fountain niches at Pompeii." Chemical analysis of the green tesseræ revealed the presence of a minute quantity (1.25 per cent) of oxide of uranium mingled with the other constituents. This is the first time that the presence of this metal as a coloring matter in Roman glass has been recognized, and it may be a clue to the provenance of the mineral used to tint the glass of these mosaics.

DESCRIPTION OF A STONE RUIN IN EASTERN NIC-ARAGUA, WITH NOTES ON THE LOCATION OF OTHER RUINS IN CENTRAL AMERICA

HEN in Nicaragua in 1905–1907 in charge of some mining operations, I was told of a "wonderful stone temple covered with Masonic inscriptions" that had been found in the woods in the valley of the Prinzapolca River, and as soon as an opportunity offered I made a visit to it. The ruin is situated about 3 miles west of "Bluenose," the headquarters camp of the Emery Mahogany Company, on the Prinzapolca River, which is 134 miles from Prinzapolca, by the river, according to my survey. The ruin is about 1\frac{3}{4} miles from the river at a point 1\frac{3}{4} miles above Bluenose, as the river runs (course about west by south); it is also 55 miles in a direct line from the coast, approximately in latitude 13° 18' north; longitude 84° 26' west.

There is a good timber road leading from the landing directly opposite Bluenose, over almost level ground, and passing about 150 yds. north of the ruin, to which a foot-path leads nearly due south from the road.

The site is the summit of a small round hill, close to the southern brow, from which a vista opens through the trees up the valley of a water course; a commanding and pleasant site. The hill extends nearly to the road, and the grounds appear somewhat hummocky, as if it had been dug over or, possibly, had been a burial place many years ago. The whole region is covered with forest, but not much undergrowth. At a point about 100 yds. before reaching the path to the ruin, coming from Bluenose, the log road crosses a small brook that runs northerly into Wolprunterac Creek.

When I reached the place, May 4, 1907, I found that vandals had preceded me and had thrown down all the stones and dug up the ground at the site, the excavated earth plainly showing that the visitors, presumably searching for treasure, had been but a few months before me.

As the place had been described to me, it consisted of 3 monoliths about 8 ft. high, forming a triangle; the ground between them was paved with stones, thus forming a sort of roofless temple. My informant was L. W. Groce, a mine owner of the vicinity, the same who was afterward executed by the Nicaraguan government for attempting to dynamite the

troop steamers of the government in the late war.

As I found it, the monoliths were lying near the 3 corners of the triangle, as indicated in the accompanying sketch, and were all broken. One of them appeared to be a rude idol, or a menhir with a rude carving of a face at the top, as shown. This was broken off where the neck should have been, but the two pieces were lying in conjunction with each other, apparently as they had fallen. This stone was round, 16 in. in diameter, and the portion out of the ground measured 8 ft. in length. The stone found at the angle C was broken in 3 pieces, and part of it was missing, probably covered up in the earth thrown out of the excavation. This stone was rudely carved as shown in the sketch.

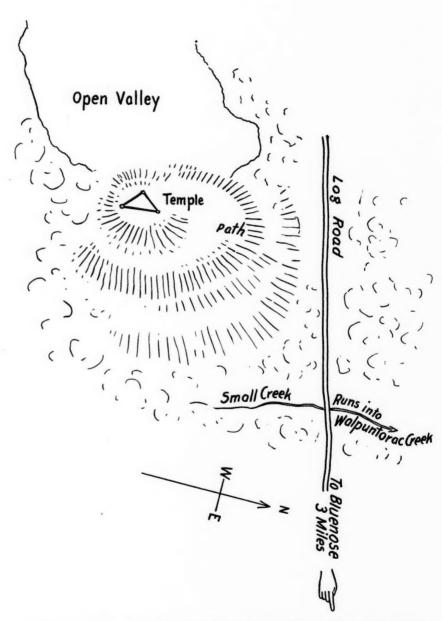


FIG. 1. SKETCH OF THE LOCATION OF THE TEMPLE NEAR BLUENOSE, $$\operatorname{\mathtt{NICARAGUA}}$$

Only a small fragment of the menhir at B could be found, and this contained the glyph shown. The stones B and C were rectangular in cross-section measuring $16\frac{1}{2}$ in. by 10 in., the fragment C being about 3 ft. long, but broken as shown. None of these stones contained any carving on the other sides.

The ground-plan of the "temple" is an isosceles triangle, the dimensions being 42 x 35 x 35 ft. A trench had been dug all around it from corner to corner and the interior showed signs of having been entirely dug over

and much of the earth thrown outside.

There were no bones or pottery to be found, and no carved stones except those herewith delineated. No "treasure" or other objects were found by the destroyers, as nearly as I could ascertain by inquiry.

The glyphs shown, especially the T-square and the one on the stone B, which may have been taken for an eye, probably gave rise to the idea of

the Masonic emblems.

The concentric parallelograms are simply incised glyphs and resemble somewhat the figures on Guatemalan pottery shown by Dr. Seler in his Antiquities of Guatemala.¹ These stones were all coarse and friable sand-stone, evidently considerably decomposed and disintegrated by age, and it is quite probable that the surface has scaled off or decayed in some places since the cutting was done, and thus some of the hieroglyphs have become effaced. Many of the marks are now very faint.

As to the age of these ruins, they show every evidence of great antiquity, and of having been made by a primitive and unskilled race. This region is now inhabited by the Sumo or Ulva Indians, and, according to the best evidence available, they were living here at the time of the Discovery, and it is altogether probable that they were made by them long

ages before the advent of the white man.

I am led to this belief because of their evident antiquity and because if they had been made by another race they would probably have been overturned or broken long ago, whereas they were preserved through all the centuries until the greed of the white man destroyed them in the hope of finding gold, only a few months before I saw them. Moreover, I have seen other stones cut in a somewhat similar manner, in Costa Rica south of the San Carlos River, and about 40 miles from the coast, on what was called on the Nicaragua Canal maps, the "San Carlos Ridge Line." These stones were discovered by my assistant engineer on the Nicaragua Canal, Mr. H. C. Miller, and were lying in a pile where they had been thrown down evidently ages ago. We thought them the ruins of a small temple. I also saw a similar incised stone with squared cross section and about 4 or 5 ft. long in Baccan Rapids, about 22 miles farther up stream from Bluenose, in the Prinzapolca river. I also saw a similar stone used as a doorstep in Greytown, which I was told had been brought from the vicinity of Boca del Toro.

The rude work shown on these stones is altogether different from the work of the Mayas or even that of the Nahuatlans on the west coast

¹ Bulletin 28, Bureau of American Ethnology, p. 111.

of Nicaragua in the vicinity of Rivas, and on the islands in Lake Nicaragua

and is very much inferior.

According to the map of Dr. Cyrus Thomas published in Bulletin 44, Bureau of American Ethnology, all the region from near the Patuca River in Honduras to Panama and extending back to Lake Nicaragua, except a narrow strip of about 10 miles on the coast, inhabited by the Mosquitos, was originally inhabited by nearly related races speaking probably the same tongue, the Chibchan, and composed of the Sumo, Guatuso

and some 4 other tribes.

Pablo Levy, on the contrary, in his book Notas Geográficas y Económicas de Nicaragua (Paris, 1873), says that the Caribs originally ocupied all the eastern slopes of Nicaragua to the Atlantic Ocean. This is undoubtedly an error, as it is now well established that the Caribs were descendants of African negroes wrecked on the British island of St. Vincent, of the West Indies, where they mixed with the native Indians and were later, in the latter part of the XVIII century, removed by the English government to the bay islands of Honduras, on account of their troublesome and turbulent disposition. This is a matter of record. It is a curious fact that to this day the women speak among themselves a different language from the men.

It appears to me that without doubt this was a menhir temple used in religious ceremonies similar in character to the druidical stones found in England, France and other countries. The round pillar with the human face is undoubtedly an idol, and, according to reports resembles those

found on the Island of Bonaca in the Bay of Honduras.

I did not make any excavations, as I did not have tools. The place is called by the present Sumo Indians *Fipuuntura*, meaning "rock in the bush." There are no Indians living in the immediate vicinity, or within a dozen miles.

LOCALITIES OF RUINS AND MOUNDS

Kukra, Nicaragua: About 80 miles northwest of Bluefields. I have a stone tiger's head that was found here and I have seen several other stone carvings from the same locality. This region was formerly inhabited by the Rama Indians, another of the Chibchan stock, but now it is said that there is only a miserable remnant of the tribe left, living on an island in Bluefield lagoon.

Islands in Lake Nicaragua: Mentioned by Squier in Nicaragua, Its

People, Monuments, etc., 1852, and referred to in the text.

Baccon Rapid, Prinzapolca River, Nicaragua: Referred to in text. The stone I saw lay awash on right side of the boat channel, about middle of rapid. Our boat scraped it in passing.

Mounds, East Coast Nicaragua: On the beach south of Laguna Wava, latitude 13° 46′. Noted as "several remarkable mounds" by the coast

surveyors on their charts.

Čopan, Honduras: Ancient ruined city. Too well known to need description.

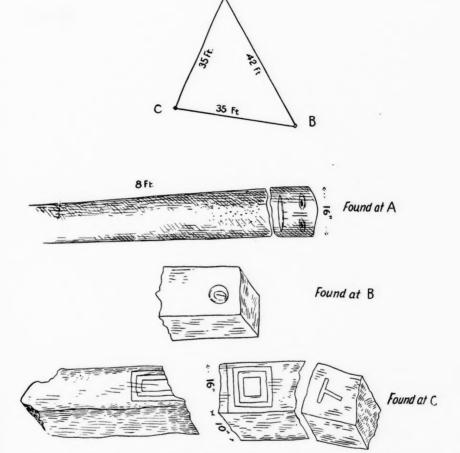


FIG. 2. DRAWINGS OF STONES AND PLACES WHERE THEY WERE FOUND

Mounds, Near Guatemala City: About I mile southwest of city. I noticed them to the left of the stage road from Antigua to Guatemala. Large and prominent on the plain.

Ruin of Temple: Near San Carlos River, Costa Rica. Mentioned in text.

Stone from Boca Del Toro: Seen at Greytown. Mentioned in text. Bonaca, Honduras: Menhirs and idols mentioned in text. It is said also that there are several immense stone "chairs," so called, and rows of great stones. These so called "chairs" may be altars.

Ruins on Guampu River, Honduras, and at El Patate on the Rio Patate or Tinto, about 5 miles northeast of the town of Rio Tinto, and two stone

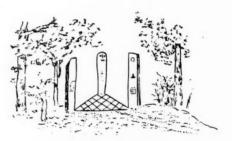
images on the Patuca River, just above the mouth of the Cuyamel River, are reported to me to have been seen by various reliable persons. Indeed it is said that old ruins abound in the whole region around the towns of Catacamas and Dulci Nombre, Honduras. There are also ruins and idols

found in the Uloa Vallev.2

Burial Places: There is a large burying ground of Paya Indians at Rita Tara about 30 miles up the Patuca River, and there was another at the town of Patuca, at the mouth of the river, but the river was fast washing the latter away, when I was there in 1898. I was told, at Rita Tara, that several of the graves there had been opened but absolutely nothing found in them but bones. The burials of Rita Tara are believed to be about 200 years old. There were about 75 graves visible.

J. Francis LeBaron.

Chardon, Ohio.



THE TEMPLE RESTORED

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MOUND IN LEADENHAM PARK, LINCS.—Mr. W. H. St. John Hope has recently described the opening of a tumulus in Leadenham Park, Lincs., England. The mound is circular, about 50 ft. in diameter and is surrounded by a ditch. At a depth of 7 ft. were two rows of stone slabs set in trenches and crossing each other at right angles. These trenches were cut in the marly rock before the mound was built. A layer of earth was first thrown over the cross formed by the trenches, and a ring of stones laid all around. Above was heaped a thick layer of clay, and finally a second layer of earth. No finds except fragments of mediæval pottery were found. The use is unknown; it was surely not a sepulchral mound. Possibly, it was a boundary mark or the foundation for a wind mill.

² See vol. i, Nos. 4-5, Peabody Museum Memoirs.

THE UNIVERSITY OF MEXICO

NE of the most noteworthy features connected with the recent centenary of Mexican independence was the formation and opening of the National University in the City of Mexico. It was more than a mere rehabilitation of the University of Mexico which passed out of existence in 1865, for its plan and scope are larger and more comprehensive than that of the older institution. A brief outline of the history of the first great institution of learning established in North America will doubtless be of interest.

During the first 25 years immediately following the conquest various minor institutions of learning, called colleges, had been inaugurated in the City of Mexico in which instruction was given the youth of both sexes; but as in these schools, with the possible exception of the college of Santiago Tlaltelolco, only the primary elements were taught, the need for a higher and more advanced course was keenly felt. Those who desired such instruction, and the number was constantly increasing, were forced to go

to Spain to acquire it.

This naturally pointed to the formation of a Mexican University, and the first steps in that direction, according to Antonio Herrera (Década VI, lib. 7, Cap. 6, quoted by Joaquín García Icazbalceta in his notes on the University of Mexico), were taken in 1539, when, at the suggestion of Fr. Bartolomé de las Casas, who was in Spain at the time, the Vicerov D. Antonio de Mendoza was instructed to found such an institution. This official had already started several schools in the City of Mexico, such as the college of Santiago Tlaltelolco for the Indians and the schools of San Juan de Letrán and La Concepción for the meztizos of both sexes; but the city authorities begged him to establish a university on a larger scale and with a broader scope than any of the foregoing where both "natives and Spaniards might be given instruction in matters pertaining to our holy Catholic faith, and in other branches," and accordingly he appointed various masters who gave lessons in the sciences most esteemed in those days, with the hope of creating later a university with its full quota of chairs; at the same time he set apart certain properties for their support. It is a pity that this is all we know of the primitive foundation of this institution, for no mention can be found of the names of the professors, what they taught, nor where or when they began teaching.

Mendoza felt that little could be accomplished without the authorization and aid of the sovereign in this matter and therefore in conjunction with the city council and the clergy he asked the Crown for the formal creation of a university with its corresponding endowment. The petition was well received and although the decree was not issued until after Mendoza had left Mexico in 1550 for his new post in Peru, to him belongs the glory

of taking the initiative.

On September 21, 1551, decrees were issued by the Emperor Carlos V and signed by the prince who afterwards became Felipe II, ordering the foundation of a university with an annual endowment of 1000 pesos in gold,

besides what had already been given by Mendoza, together with the privileges and franchises enjoyed by the great Spanish University of Salamanca, with certain limitations, which were later lifted by Felipe II by decree dated October 17, 1562. The apostolic see, at the king's request, in 1555, confirmed the foundation and the privileges and provided that the institution should be governed by the statutes of the University of Salamanca and enjoy the same rights. The patronage was vested in the kings of Spain, and a little later it was given the title "Pontifical." Such was the origin

of the "Royal and Pontifical University of Mexico."

The actual task of inaugurating the institution fell to the lot of D. Luis de Velasco, the second viceroy in Mexico, who at once chose some houses belonging to Doña Catalina de Montejo, (see Grijalva, Crónica, Edad II, cap. 13,) although Sigüenza y Góngora in his Piedad Heróica de D. Fernando Cortés, cap. 10, claims that the houses selected were the property of one Juan Martínez Guerrero. Be that as it may, it is certain that they were located on the corner of the calles de Arzobispado and Seminario as stated by Dr. Francisco Cervantes Salazar in his Diálogos, II, p. 193 f. The ceremonies in connection with the foundation took place in the church of San Pablo on January 25, 1553, the viceroy, the royal audience, tribunals and the clergy honoring the occasion with their presence. D. Antonio Rodríguez de Quesada and D. Gómez Santillana were nominated rector and chancellor respectively; the first professors were: of theology, P. Fr. Pedro de la Peña, a Dominican; of the holy scriptures, Fr. Alonso de la Vera Cruz, an Augustine; of canon law and decretals, Dr. Pedro Morones, attorney of the audience; of papal ordinances, Dr. Bartolomé Melgarejo; of laws and institutes, Lic. Bartolomé de Frías; of arts, Juan García, a canon of the cathedral; of rhetoric, Dr. Francisco Cervantes Salazar, and of grammar, Br. Blas de Bustamante. The university was formally opened on June 3, 1553, on which occasion Dr. Cervantes Salazar delivered the inaugural oration in Latin of great classical merit. It may be noted in passing that his salary as professor of rhetoric was 150 pesos per annum! On June 5, 1553, the first lesson was given in one branch and on successive days until June 24 in each of the other branches, in order that the viceroy and the audience could be present at the first lesson in each course. The first students who matriculated were 10 Augustine monks, among them being the future bishop of Zebu, in the Philippines. At the very beginning instruction was given only in theology, civil and ecclesiastical jurisprudence and rhetoric, and in the Latin, Mexican and Otomí tongues. The teaching was along the lines of scholasticism, not to be wondered at when it is considered that Fr. Alonso de la Vera Cruz, an enthusiastic follower of Thomas Aguinas, was the foremost professor in the faculty.

The first general assembly of which there is any record was held on July 21, 1553, when P. Fr. Alonso de la Vera Cruz was inducted into his chair and was given the degree of doctor in theology; degrees in arts and theology were also conferred upon the Professors P. Pedro de la Peña and P. Juan García. On the following day the first election was held and Dr. D. Juan Negrete was chosen rector, one of the counsellors being Cervantes Salazar. These assemblies of the faculty were at first held in the royal

palace, then in the cathedral chapter house and later in the City Hall until the university buildings were completed. Thus the University of Mexico was definitely established.

There are some indications to the effect that in 1561 the university occupied a house belonging to the Hospital de Jesús; but this is doubtful as there is no record of any removal from such place. In 1574 the king ordered the confiscation of some property belonging to one Alonso de Avila (on account of his participation in the conspiracy against Cortés) for the use of the university, but it was found to be too small, and so was not used. On May 24, 1584, the rector asked the audience that four solares (lots) belonging to the Marqués del Valle in the plazuela del Volador be sold to the institution, a fair price to be paid therefor. In spite of the opposition of the representative of the Marqués the audience acceded to the request, appraising the lots at 500 pesos each. A law suit was at once instituted; notwithstanding this, however, the corner-stone of the new building was laid with great pomp and ceremony on June 29, 1584, the work being in charge of Maestro Melchor Dávila. In the following year the Marqués obtained a decree providing that all papers in the case be turned over to the council for the Indies, and in consequence thereof further work on the building was suspended.

This state of affairs continued until June, 1589, when part of the edifice occupied by the university fell in ruins; the rector at once asked the audience that steps be taken so that the course of studies should not be interrupted. The schools were then transferred to one of the houses of the Marqués del Valle on the calle del Empedradillo. Shortly after this the viceroy, the Marqués de Villamanrique, in spite of the pending legal proceedings, gave orders that work be resumed on the building already begun in the plazuela del Volador, the value of the lots to be fixed later; they were eventually appraised at 2000 pesos each and paid for at that price.

To assist in the construction work the city council loaned the university 16,000 pesos in all, and furnished certain building materials in addition. In 1589, although the edifice was not completed, classes were held therein. It was finally finished during the reign of Carlos III (1759–1788). At the time of its completion it had a very ornate portal 14 varas wide by 25 high, supported by columns of a composite order, with counter-pilasters with highly ornamented mouldings. All this was taken away later to adorn a temporary structure which was used in connection with the ceremonies of swearing allegiance to Carlos IV. There were three courses; on the first were statues representing Civil Law and Medicine, and in demi-relief, Philosophy; on the second course, Theology and Canon Law, and on the third, under the royal coat of arms, an oval with the bust of Carlos III, and on either side busts of Carlos I and Carlos II. The patio (courtyard) was 45 varas long by 39 wide, well tiled and surrounded by 28 columns supporting 36 doric arches. The chapel, 30 varas long by 9 wide, was on the west side of this patio.1

¹In 1824 the equestrian statue of Carlos IV was removed from the Zócalo, where it had originally been erected, and placed in this patio for safe keeping. It remained here until 1852 when it was placed in its present position at the eastern end of the Paseo de la Reforma.

In the Hall of Debates there was an inscription on the frieze which, according to Carlos Sigüenza y Góngora ("Triumpho Parthénico," Mexico, 1683), read as follows:

"Governando las Españas la Cathólica y real Magestad de Carlos II nuestro Señor, y en su nombre esta Nueva España el Excelentíssimo Señor Conde de Paredes, Marqués de la Laguna, se hizo este General siendo rector reelecto el doctor D. Juan de Narvaez Tesorero General de la Santa Cruzada es este Arzobispado de México, de edad de XXIX Años, y se acabó á XVII de febrero, año de MDCLXXXIIJ."

(Ruling in Spain his Catholic and Royal Majesty Carlos II, our lord, and in his name, in this New Spain his Excellency the count of Paredes, Marquis de la Laguna, this Hall was built, Dr. Juan de Narvaez being rector and general treasurer of the holy tribunal of this archbishopric of

Mexico, 29 years of age, and it was finished February 17, 1683.)

In the library of the university there were 12 gilt framed pictures on canvas representing 12 sibyls; each was 1m.10 wide by 1m.46 long. Until a very recent date they were in the library of the National Museum above the bookcases in approximately the same places they occupied in the university. They are now stored away in a warehouse belonging to the Museum. The figures are half size; above each one was the name of the sibyl and below her oracle. These oracles were as follows:

I

SIBILLA ERETHREA LLAMADA LA ANTIGUA

"Tierno de Dios el hijo, ya crecido Penas tolerará del Cielo embiado Y de Virgen hebrea alimentado Cielo prepara al endurecido."

(The Erythraean Sibyl, called the Ancient.

The infant Son of God, sent from heaven, he will suffer pain when grown, and, nourished by a Hebrew virgin, prepares heaven for the sinner.)

The figure, in an attitude of meekness, has a lamb in her arms.

Π

SIBILLA DELPHICA, HIJA DE TIRESIA

"Al correr de la edad á pocos años Vendrá de intacta Virgé engendrado Sin obra de Varon el Dios deseado A redimir al pueblo de los daños." (The Delphian Sibyl, daughter of Tiresias.

After the course of a few years, the desired of God will come, born of a pure virgin, whom no man hath known, to redeem the people from harm.) She holds a book with both hands, the face being turned to the left.

Ш

SIBILLA EGYPTIA LLAMADA AGRIPPA

"Hecho carne de madre inmaculada Nacerá el Verbo, siempre deseado Christo Censor del vicio, que trocado Dulzura será al Alma ya enmendada."

(The Egyptian Sibyl, called Agrippa.

Made flesh, of an immaculate virgin, the Word shall be born, the long wished-for Christ, the censor of evil, who, transformed, shall become the comfort of the soul reformed.)

She appears as a shepherdess, holding an open book in her right hand, and in the left a crook.

IV

SIBILLA HELLESPONTICA DEL CAMPO DE TROIA

"No largo tiempo contará la gente, Sin que vea sus deseos, que le serena La Virgen, q dará á Dios de Dios llena Siendo Virgen, y Madre juntamente."

(The Hellespontine Sibyl of the field of Troy.

The people shall not wait long until they see their hopes fulfilled, for the virgin, big with child, of God, being at once virgin and mother, comforts them.)

The attitude is that of repose, a book being held in the right hand and in the left three ears of corn.

V

SIBILLA TIBURTINA LLAMADA JTALICA

"En el fin de Bethlen, á donde viene, De Nazaret la Virgen peregrina, Parirá y dará á Dios leche divina: O feliz la q bien tan grande obtiene."

(The Tiburtine Sibyl, called the Italian.

At length in Bethlehem, whither the wandering virgin comes from Nazareth, she will bring forth and give heavenly milk to God: O happy one that hath obtained so great a blessing.)

She holds a vase in one hand and a palm branch in the other.

breast.

VI

SIBILLA LIBICA LLAMADA PHOEMONOE

"Del hebreo el Rey y Redemptor del mū do Sobre sí elevará nuestro pecado: De los sabios el Maestro despreciado Descubrirá á la plebe lo profundo."

(The Libyan Sibyl, called Pomona.

The King of the Jews and the Redeemer of the World shall take upon Himself our sins: the Master, despised of the wise, shall disclose to the common people the depths of wisdom.)

VII

SIBILLA PERSICA LLAMADA SAMBETHA HIJA DE BEROSO

"De Virgen y Madre nacerá Dios hijo De nuestra salud causa, á quien triumphā te Ve en un asno Gerusalen, que amante Saldrá de allí al tormento mas prolixo."

(The Persian Sibyl, called Sambetha daughter of Berosus.

The Son of God shall be born of a virgin mother for our sakes: He whom Jerusalem beholds seated upon an ass triumphantly, shall lovingly go forth to torture of every kind.)

In her right hand she holds a book, while in the left she has a cross.

VIII

SIBILLA CVMEA SACERDOTISA DE APOLLO

"Darán un Rey, los siglos ya cercanos A quien Dones los reyes abatidos Llevaran de una estrella conducidos, Lilios y flores á este, dad mundanos."

(The Cumaean Sibyl, Priestess of Apollo.

The nearing ages shall give a King to whom the worshipping kings, led by a star, shall bring gifts; lilies and flowers give to Him, ye worldlings.)

The face is in profile and the hands, holding lilies, are crossed over the

IX

SIBILLA EUROPEA DE PATRIA IGNORADA

"Queriendo hazerte pobre, en pobre chosa Nacerá el Rey de Reyes en el suelo: Baxará á los infiernos y hasta el Cielo Irá la Magestad ya victoriosa." (The European Sibyl, country unknown.

Wishing to teach humility, in a lowly hut shall be born the King of Kings into the world: He shall descend into hell, and thence shall ascend into heaven in glorious majesty.)

\mathbf{X}

SIBILLA SAMIA LLAMADA PHITO

"Sombras rompe en su luz el claro dia, Y abre misterios del antigua archivo Un Rey \overline{q} es muerto, y en la muerte vivo, A quien diadema dura le Ceñía."

(The Samian Sibyl, called Phito.

The clear day breaks with its light the shadows, and a King who is dead and in death alive, crowned with a lasting diadem, discloses the mysteries hitherto hidden.)

She holds a crown of thorns in her right hand and in the left a half opened book.

XI

SIBILLA CVMANA LLAMADA AMALTHEA

"Consagra triumphos el que Dios eterno Hombre se haze, à la muerte, y á la vida: Prole Virgen, de Virgen concebida, Que á todos les da Paz, hasta á el infierno."

(The Cimmerian Sibyl, called Amalthea.

He proclaims his triumphs, who, being eternal God, makes himself a man subject to life and death: virgin issue, conceived by a virgin, He gives peace to all, even to those in hell.)

She appears to be reading a book which she carries in her left hand, while in her right hand she holds a white banner.

XII

SIBILLA FRIGIA LLAMADA CASADRA HIJA DE ANCIRO

"En virginal albergue reclinado
De su Madre, recibe carne humana:
Un angel lo futuro nos explana
Y la salud al miserable ha dado."

(The Phrygian Sibyl, called Cassandra daughter of Ancirus. In a virginal womb reposing, He receives human flesh: an angel explains the future to us: health to the suffering He has given.)

She has a sword in her right hand and laurel branches in the left; her face is turned towards heaven.

All these paintings appear to be the work of one artist, presumably Pedro Sandoval, whose signature is found on the picture of the Egyptian

Sibyl. No dates are given.2

The various professorships were increased in number from time to time until at the end of the XVIII century there were 24 in all. At first the university was governed by the provisional statutes given by the viceroy and audience, which were a modification, as already indicated, of those in force at Salamanca. They were revised in 1580 by the Oidor (judge) D. Pedro Farfan, and again in 1583 by Archbishop Moya y Contreras. Finally Bishop Juan Palafox, having been named visitant, drew up a new set of statutes in 1645 which were confirmed by Felipe IV in 1649. They were printed in 1645 and reprinted in 1775. Up to the last named date 1162 doctors and 29,882 bachelors had been graduated, no mention being made of licentiates.

After the Independence, 1821, the university lost its importance and declined in public estimation. In 1833 it was closed by Vice-President Gomez Farías. On the downfall of his government in 1834 it was reopened by Santa-Anna, who succeeded him, and he revised the then existing statutes in 1854. President Comonfort then closed the doors in 1857 but they were reopened in May, 1858, by General Zuloaga. Benito Juarez closed them once more in 1861, but during the regency studies were again resumed. In 1865 the Emperor Maximilian finally closed the doors and ordered the books in the library, of which there were some 10,000, to be packed in boxes. It has been asserted that no one knows their whereabouts. The building was then used as the office of the ministry of Fomento; later it was turned into a Conservatory of Music, and in 1909 was entirely demolished.

Troja fuit!

A. L. VAN ANTWERP.

Mexico City.

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² See "Epigrafía Mexicana," p. 34 et seq. by Jesús Galindo y Villa; also "Reflexiones sobre las reglas y sobre el uso de la crítica," by P. Honorato de Santa María, Mexico, 1792.



BRONZE HATCHET WITH DOUILLE. FROM THE NECROPOLIS OF LA QUENIQUE

RECENT BRONZE ADDITIONS TO THE ROYAL MUSEUMS OF BRUSSELS'

MONG the recent additions to the Royal Museums of Brussels is a fine figurine of Minerva, presented by M. Van den Berghe Loontjens. It is bronze, Romano-Gallic, covered with a beautiful dark green patina and was found at Roulers (western Flanders) in the earth taken out during the cleaning of the large reservoir situated between the roads from Hooghlede and Staden, crossed by the Mandel.

A more important gift was made by the Count Goblet d'Alviella, vicepresident of the senate, professor in the University of Brussels, who has wished to enrich our national collections with objects found by him in the course of his excavations of the hallstattian necropolis of La Quenique, at Court-Saint-Etienne.

Among the 88 pieces which constitute this magnificent gift, it is convenient to mention here only a few objects of the first order and of high scientific interest. They are:

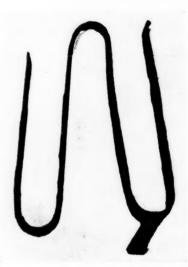
A bronze hatchet of the type with douille.² The presence of this object, characteristic of the IV period of the bronze age, shows us that at the commencement of the iron age, certain bronze instruments were still in use.

A bronze razor with two edges, pierced, with a handle formed of 2 rings. We know that the "double razors with pedoncules," frequent in the larnaudian epoch (bronze IV) were very numerous during the hallstattian.

Five fragments of bronze swords broken with ritualistic purpose. One of them, with a flat blade with fillets upon the 2 edges of the blade, still

¹ Translated for RECORDS OF THE PAST from Bulletin des Musées Royaux du Cinquantenaire, April, 1912, by H. M. W.

² Hollowed out portion, usually cylindrical, by which certain iron instruments are set in a handle.



HALF OF AN IRON GRATE. NECROPOLIS OF LA QUENIQUE

preserves the rivets of the handle. The swords of this type, a little peculiar, appertain to the time from the last phase of the bronze age to the first part of the iron age.

A large iron sword with double edge, flat blade, notches and rivets.

It measures, without the point which is lost, about 1 ft. 10 in.

A large iron sword, complete, of the same type as the preceding, but bent intentionally to comply with a funeral rite. It is bent back forming a circle, the point meeting the shoulder of the blade immediately under the hilt. Its length is about 3 ft. 2 in.

A bronze champit or base of a scabbard with edges turned back.

Two complete horse bits, of iron. The sides, slightly turned towards one end, are united by a broken bar, formed of 2 twisted rods fastened to one another. Through the ends of these rods 2 large movable rings are passed, to which the reins were attached. These iron bits present, as far as the rings are concerned, the greatest resemblance to those of the IV

period of the bronze age.

A large iron dagger with wide blade slightly pistillate, with 2 edges, a midrib and a tapering point. The blade is round and the pommel is formed of 2 bifurcated horns, each with a pair of balls. The whole length of this weapon is about 1 ft. 8 in. Count Goblet says with reason that it is the first dagger with horns which has been discovered in our country. Its origin must be sought in Italy, and its principal area of distribution comprises central Germany and southern Europe. In type and time it belongs to the final phase of the first iron age. The long iron sword with flat blade, with notches and rivets, then, characterizes the second period, and the bronze sword the beginning of the hallstattian epoch.

A curious group of household utensils, all of iron, composed of the following pieces: A large fork with a *douille*, a kind of fire shovel with hollow rod and part of a grate made of a single piece of bifurcated iron bent many times. A similar grate, but complete, was found in 1909 in the course of the excavations of Alise. It measures 1 ft. 5 in. long and about 7 in. wide. It was accompanied by a fire shovel similar to that of *La Ouenique*.

Finally we mention, among other ceramics, 2 beautiful vases full of débris of burned human bones. One is ornamented on the belly with a kind of frieze composed of 3 parallel fillets traced horizontally in a hollow above a row of little notches sloped to the left. The other, which is larger, is decorated with 4 parallel horizontal lines incised, above a motive of 5 parallel lines traced likewise in a hollow.

A. L.

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ARCHAEOLOGICAL PROGRESS IN OHIO

HURSDAY, September 12, 1912, the cornerstone of the new museum of the Ohio State Archæological and Historical Society was laid. The building is on the campus of Ohio State University. The secretary of the Society, Mr. E. O. Randall presided. Among the speakers of the occasion was Prof. G. Frederick Wright, who spoke as follows:

Ohio has been behind many of her sister states in appreciating the wealth of her archæological and historical treasures. Confessedly, she is preëminent over all in the wealth of her prehistoric remains, while her history records a greater variety of thrilling historical episodes than that of almost any other commonwealth. Early in the last century her mounds and earthworks were sporadically explored by Squier and Davis to obtain relics of her prehistoric people. The results of this exploration by these two eminent citizens of the state are embodied in the noble volume which constitutes the first monograph published by the Smithsonian Institution of Washington. But it remained for an appreciative archæologist of England to set a just estimate upon the relics collected at that time. Mr. Blackmore of Salisbury, England, gave practical demonstration of this appreciation by purchasing the entire collection and erecting for it a special building in his native town, whither all American students have to make a pilgrimage if they would study the first fruits of archæological exploration in Ohio.

At a later date the authorities of the Peabody Museum in Cambridge, Mass., of the National Museum at Washington, and of the Field Museum at Chicago, awoke to the importance of our buried treasures and spent large sums in excavating for them. The remarkable discoveries made by these outside parties are duly displayed in these museums, and serve greatly to enhance their attractiveness.

But, fortunately, these outside explorers did not find all of our treasures. Under the liberal patronage of the state legislature our accomplished curator, Prof. W. C. Mills, has been so successful in gleaning the field that even now our collection of implements and ornaments from the mounds and earthworks of the state exceeds in interest and value that of any of the other collections, and has taken the first prize at all the expositions where it has been partially displayed.

We cannot, however, say as much for the historical collections. More than half a century ago Wisconsin was so fortunate as to engage for the custodian of its library a

widely known and highly accomplished citizen of Ohio, who signalized his appointment by scouring the state in search of original manuscripts bearing on our early history. So successful was he that the Wisconsin library has a larger collection of such documents than we can ever hope to obtain. The redeeming feature in the case is that the curators of the library at Madison are over generous in giving the students of our history access to their treasures, and in permitting us to print them for the benefit of our citizens and the world. But Wisconsin did not get all. We have already accumulated a large quantity of original documents which were overlooked by the enterprising Wisconsin

collector.

Up to this point one of our greatest lacks has been an appropriate building in which we could safely preserve, and display our inestimable documents and relics. Many private collections are only awaiting the erection of such a building to be added to our already great store of valuable objects. We cannot be too thankful for the appreciation of the work of the Ohio State Archæological and Historical Society which has been shown in the generous appropriation of \$100,000 for the erection of the noble building whose cornerstone we are now proceeding to lay. Hither may all the teeming population of our state come from time to time to be reminded of the privations and heroism in which the foundations of our commonwealth were laid, and of the contrast between the privileges of the present time and those of the dim prehistoric age of which we have such abundant evidence in the mounds and earthworks whose relics enrich our museum. Let us pray and hope that no accident may befall those who engage in the erection of these walls, and that no disreputable work may enter into its construction partially to defeat the generous aim of the state authorities in providing the means for its erection.

4 4

BOOK REVIEWS

ASTROLOGY AND RELIGION AMONG THE GREEKS AND ROMANS¹

HE lecturer for 1911–1912 in the course of "American Lectures on the History of Religion" was Franz Cumont of Brussels, who is probably the best authority on Greek astrology and Mithraism. His course of lectures on Astrology and Religion among the Greeks and Romans has been published in book form, and makes very nteresting and suggestive reading. Although we all doubtless have a general impression that astrology had a great deal of influence on the development of early civilizations, we hardly realize the extent to which it has survived even to the present.

Do we still remember, when we speak of a martial, jovial or lunatic character, that it must have been formed by Mars, Jupiter or the Moon, that an *influence* is the effect of a fluid emitted by the celestial bodies that it is one of these "astra" which, if hostile, will cause me a disaster and that, finally, if I have the good fortune to find myself among you, I certainly owe it to my lucky star?

¹Astrology and Religion among the Greeks and Romans. By Franz Cumont, Ph.D., LL.D. Pp. xxvii, 208. \$1.50 net. New York and London: G. P. Putnam's Sons. 1912.

Our names of the planets are, as he aptly expresses it, "an English translation of a Latin translation of a Greek translation of a Babylonian nomenclature."

Dr. Cumont brings out clearly the struggle of the Chaldeans, Babylonians, Greeks and Romans to harmonize the advancing scientific knowledge of the universe with the established theories of the stars, their movements and their influence on man. Advance in science was practically blocked by the priests and rulers whose power lay in their divine rights derived from the stars.

Although Dr. Cumont gives Hipparchus of Nicæa (161–123 B.C.) the credit of the discovery of the equinoxes, yet he points out that Hipparchus borrowed much from the Chaldeans, the most striking example being a calculation of the lunar periods attributed by Ptolemy to Hipparchus. Cuneiform tablets show that his calculation was borrowed direct. The remarkable accuracy of the original calculation will be seen by comparing it with the modern calculation.

Mean synodic month29 d	lays 12	hours	44'	31.3"
Mean sidereal month	lays 7	hours	43'	14.0"
Mean anomalistic month				
Mean dracontic month	lavs 5	hours	5'	35.8"

The durations calculated by modern astronomers are:

(1)29 da		
(2)27 da	ys 7 hours	43' 11.5"
(3)27 da		
(4)27 da	vs 5 hours	5' 36.0"

The author traces the dissemination of the beliefs of the Chaldean astrologers through the west where they were "transformed in the Hellenistic age under the twofold influence of astronomic discoveries and Stoic thought and promoted, after becoming a pantheistic Sun-worship, to the rank of official religion of the Roman Empire," and shows the development of a theology based "on theories of celestial mechanism" which gave rise to various forms of devotion, the original of which is sidereal mysticism, and the latter's relation to fatalism.

In the last chapter on *Eschatology*, Dr. Cumont sketches the historical development of sidereal eschatology and considers the following 4 questions:

- 1. Who obtains astral immortality?
- 2. How does the soul ascend to heaven?
- 3. Where is the abode of the blest to be found?
- 4. How is the blessedness that is vouchsafed to them conceived?

This book is fascinating reading and opens up many related lines of thought which are of general interest.

FREDERICK B. WRIGHT.

THE EVOLUTION OF LITERATURE²

OCTOR A. S. MACKENZIE in his work on the Evolution of Literature has entered a new field of research, or at least has entered the field by a new path. He has presented, as he says, not a record of "literary history but of literary evolution" (p. 300). Starting with the literature of the most lowly existing hunting tribes he traces the development of the different literary forms from their very beginnings. Such an undertaking requires great sympathy not only with what we consider the great masterpieces of literature but also with the thoughts and yearnings of primitive man in his effort to record his own feelings. "If," he says, "sincerely and sympathetically we strive to find the philosophy of the hunter's lowly efforts toward self-expression, it may be easier for us to comprehend the essential oneness of the human spirit." This sympathy, which the author evidently feels, together with a vast amount of discriminating research in the literature of all lands renders Dr. Mackenzie specially fitted for the presentation of such a work.

In stating the problem, the author decides to use the term evolution to denote "orderly change for better or worse," and to treat the subject by a comparative rather than a historical method, although the latter is

necessary in considering certain aspects of the subject.

Dr. Mackenzie makes 4 grand divisions of the social scale of man's development: Primitiveness, Barbarism, Autocracy and Democracy. He compares the literature of different tribes and peoples belonging to these stages of civilization not only among themselves but also with the stages above and below, stages which of course merge into one another by almost imperceptible gradations. The distinction between the first of these is best given in his own words:

Primitive tribes rest upon a natural basis of sustenance, whereas barbaric tribes have a restricted artificial basis. Outside the pale of history lie the beginnings of this stupendous transformation. Primitive man catches beasts, birds or fish where and when he can; barbaric man has learned to domesticate animals so that he may be independent of their migrations. Primitive woman gathers the wild fruits, roots, or cereals where and when she can; barbaric woman has learned to cultivate such plants as experience has taught her to be useful for nourishment or healing. Consequently primitiveness is upon a less rational basis than barbarism. The lower barbarism can boast of either herdsmanship or agriculture, while the higher can boast of both.

In a most interesting and suggestive manner the author traces the gradations of poetry and drama from the choric dances and one-word songs of the most primitive existing hunting tribes of Australia to those of the more cultured hunters such as the Bushmen and Eskimos, then to the agricultural peoples and down to our great masterpieces. In the same way he shows the beginnings of fables in the primitive animal myths, the masque as developed from tribal face-painting, etc.

² The Evolution of Literature. By A. S. Mackenzie, Head of the Department of English and Comparative Literature, State University of Kentucky. Pp. xvii, 440; 10 illustrations. New York: Thomas Crowell and Company. 1911.

Dr. Mackenzie thinks that "the customs of contemporary hunting tribes lend but little support to Darwin's hypothesis that music, poetry and oratory had their origin in the desire to charm the opposite sex." Many will disagree with the author in his contention that "in a sense poetry is earlier than articulate speech" even should they admit that the primitive poems of one or two words were real poems despite the meaninglessness of the words, making them, as he expresses it, inarticulate verse.

There are two classes of primitive poems, the articulate and the inarticulate. The one-word traditional poem of the Kwai and the two-word traditional poems of the Botocudos and the Eskimo exemplify the simplest possible forms of verse. In all 3 cases the text is meaningless. Let us be slow to despise the hunters because they so often chant songs without intelligible words. Folk-songs and balladry contain words or lines that have now no other value than to fill up the measure. The interjectional Ha! or Eja! of German ballads, the O! and the Ah! of British songs and ballads are precisely like the Hooch! which is still used to punctuate the graceful windings of the Highland reel and strathspey. Wherein do these and similar surviving exclamations in every land differ from phenomena we have constantly noticed among the undeveloped tribes? Are not these in some cases merely the vestigial remnants of the old tribal chants with their complete text of one word or two?

His contention that the "rise of new pursuits, of new interests in general, is paralleled by the appearance of new literary types" (p. 340) is well put and sums up admirably the way social and literary development have gone hand in hand.

In conclusion he gives 3 provisional laws of literary progress:

1. The Law of Progress may be stated thus: Under similar conditions the average literary advance in a given community is directly proportional to the width and depth of man's attainment of consciousness of self and of the world.

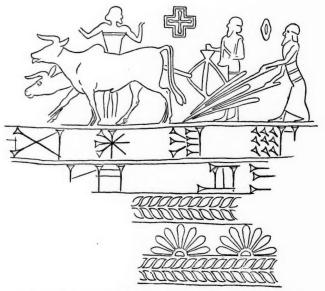
2. The Law of Initiative may be stated thus: Every step in literary progress is initiated by individuals, whose success is measured by their own mental individuality and by the readiness of the community to receive as well as to perpetuate the new discovery in form or content.

3. The law of Responsiveness may be stated thus: Other conditions being equal, literary form and content vary directly with the orientation of mental responsiveness in a given community.

These few scattering quotations and remarks will serve to indicate Dr. Mackenzie's point of view and we trust will awaken a desire to personally examine the book which is of absorbing interest. Dr. Mackenzie is not dogmatic; he realizes the vagueness of all beginnings which go back to prehistoric times and so his style is not antagonistic even to those who may differ from his conclusions.

FREDERICK B. WRIGHT.





BABYLONIAN PLOW WITH TUBE FOR SOWING GRAIN

DOCUMENTS FROM THE TEMPLE ARCHIVES OF NIPPUR³

MONG the most recent publications of the Babylonian Section of the University of Pennsylvania Museum is Vol. II, No. 2, by Dr. Albert T. Clay which comprises Documents from the Temple Archives of Nippur dated in the Reigns of Cassite Rulers. As we find exceedingly interesting bits of history in the lists of names contained in the Chronicles so among these apparently dry tablets there is one of great general interest. It is the seal impression representing a plow. This we reproduce and quote Dr. Clay's description of it:

With one notable exception the tablets of this volume do not contain important impressions of seals. This one contains an unusually large seal, one of the oldest representations of the plow known. It is found on text No. 20, which is dated in the 4th year of Nazi-Maruttash (14th century B. c.), the seal having been run over both sides of the tablet as well as the 4 edges. Unfortunately there is no complete impression of the seal on the tablet. Some parts were repeated several times, but others are wanting. Moreover, owing to the moisture in the earth and exposure to the atmosphere since it was excavated, the surface of the tablet has suffered considerably.

A yoke of oxen is represented drawing the plow. The name of the animal is alpu "ox" in the inscriptions and is called at the present time, zebu, or humped bull (bos indicus). Three men are employed in operating the plow; one guides it; another

³ Documents from the Temple Archives of Nippur dated in the Reigns of Cassite Rulers. By Albert T Clay, University of Pennsylvania: The Museum: Publications of the Babylonian Section. Vol. II, No. 2.

drives the animals, who being depicted larger in size than the others is doubtless the chief of the gang; and a third, with a bag of grain on his shoulder, is in the act of feeding the tube or grain drill, through which the seed was dropped into the furrow made by the plow. This is the most perfect representation of the ancient plow, as well as one of the earliest, discovered. Similar plows with the tube for sowing grain are used in Syria at the present time. The name of the individual for whom the seal had been made, is Arad-NIN-SAR, which means "Servant of NIN-SAR (the god of vegetation)."

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PUBLICATIONS OF THE BABYLONIAN SECTION OF THE UNIVERSITY OF PENNSYLVANIA MUSEUM⁴

WO more parts of the publications of the University of Pennsylvania Museum, Babylonian Section, have just appeared. The first of these, Babylonian Hymns and Prayers, by David W. Myhrman consists of the publication of 11 tablets procured from the University's excavations at Nippur and 7 tablets purchased by the Museum from dealers who had obtained them from Arabs who claimed to have dug them up in Babylonia. The second is a volume of texts from the archives of Murashu Sons and completes those dated in the reign of Darius II with the exception of a few in private possession. There are still a considerable number of unpublished Murashu documents dated in the reign of Artaxerxes I. Beside the copies of the tablets, Dr. Clay gives an index of the proper names and a descriptive list of the tablets.

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EDITORIAL NOTES

ETRUSCAN SARCOPHAGUS.—From Orvieto, Italy, a unique Etruscan sarcophagus is reported. It is adorned with bas-reliefs representing episodes of the siege of Troy and shows traces of the original coloring.

WORK AT MEMPHIS.—Reports early in the summer state that in the work under J. P. Morgan's patronage at Memphis the Palace of King Amenhotep III has been uncovered. The rows of houses in which the palace officials lived were within the palace walls. A number of frescoes were discovered depicting flying ducks and pigeons rising from lotus and papyrus marshes. At El Khargeh a temple in fine state of preservation was excavated. This temple began as a pagan temple but finally had a Christian church built inside the great peristyle in the reign of the Emperor Constantine. In the cemetery outside the temple were found pottery and implements.

⁴University of Pennsylvania Museum: Publications of the Babylonian Section. Vol. I, No. 1, Babylonian Hymns and Prayers by David W. Myhrman. Vol. II, No. 1, Business Documents of Murashu Sons of Nippur dated in the Reign of Darius II by Dr. Albert T. Clay. Published by the University Museum, 1912.

DR. HRDLICKA IN SIBERIA.—Dr. Ales Hrdlicka has gone to the Upper Yenisei region of Siberia to carry on studies and make collections for the United States National Museum and the Panama-California Exposition. In the course of his trip he will visit Irkutsk, parts of Mongolia and Turkestan.

QUARTZ SPEARPOINT FROM FORT ANCIENT.—More than 8 years ago part of a broken spearpoint of quartz was found at Fort Ancient, Warren County, Ohio. Within the last few months another piece was found, which, when placed with the other, formed a spearhead $7\frac{3}{8}$ in. long and about $1\frac{3}{4}$ in. wide, said to be the largest spearhead of quartz on record.

ROMAN VILLA AT HAMBLEDEN, ENGLAND.—In September, 1911, Miss Glassbrook discovered at Hambleden near Henley traces of Roman occupation. Excavations this year have revealed extensive remains of an elaborate Roman villa, with well-preserved tile floor, water conduit for the baths and flues for heating the building. A number of coins were found. At present the ruins are ascribed to the II century.

PURPOSE OF THE NURAGHI ON SARDINIA.—Herr Leopold von Schlözer has recently published a paper on the *nuraghi* or cone-shaped monuments of Sardinia, inclining to the theory of Signor Ellore Pais that these were dwelling places, not tombs. He points out that the shepherds on the island were at all times subject to attack by other inhabitants of the island as well as by sea rovers. Hence the *nuraghi* were built for defense, with chimney and with low entrances.

ROMAN ENAMELS.—M. Mauget has recently made a study of enamels in Roman times as exemplified in a Gallo-Roman workshop discovered near St. Ménéhould, France. The colors present a perfect series of gradations, showing a mastery of the technical processes involved. He thinks the art of enameling was derived from Egypt, where it was practiced under the Saite dynasty, but originated probably in Persia. The workshop in question was used for the manufacture of mosaics only, he claims.

GRAVEYARD OF THE XX LEGION.—Recent excavations in the course of extending the Chester (England) Infirmary disturbed the grave-yard of the XX Legion. Bronze coins of Antoninus Pius and Commodus were found, and some of the graves have Roman roofing tiles bearing the stamp of the XX Legion. "Professor Newstead, who has examined the remains, believes that the Infirmary Field was not a plague burial-place [as some have supposed] but solely used for Roman interments." One grave is reported to have contained 3 urns in one of which was a metal mirror, indicating that the remains were those of a woman, perhaps of some distinction. Roman sandals, pottery, tiles and bottles were also found.

POSSIBLE FURTHER EXPLANATION OF ANCIENT MYTH.— Mr. Roger Foster of New York, who has recently taken a trip through Asia Minor, makes a suggestion concerning the mythical contest between Apollo and Marsyas, when the Muses awarded the prize to Marsyas. Some little distance from the supposed scene of this contest, the river Marsy descends a steep hill and is divided into many streams by the rocks. Mr. Foster suggests that this section of the river might have been imagined to be the body of Marsyas writhing in agony after Apollo skinned him.

PROPOSED INTERNATIONAL CONGRESS OF THE ANTHRO-POLOGICAL SCIENCES.—The Royal Anthropological Institute of Great Britain and Ireland called an International Conference in June of this year to consider the organization of an international congress of the anthropological sciences, which should either include several existing congresses or work with them. The conference voted to organize and an organizing committee was appointed with Dr. A. P. Maudslay as chairman. No congress will be held before 1915, and possibly not then. In the meantime, a general committee is being constructed and sub-committees are being formed to establish harmonious relations with the existing international congresses.

SWEDISH EXPEDITION TO SOUTH AMERICA.—Eric Boman left Stockholm January 10, 1912, on an expedition to South America under the auspices of the Swedish Anthropological and Geographical Societies. The expedition is to last about a year. Dr. Boman plans first to continue archæological investigations south of the Province of Catamarca, with a view of determining whether the pre-Hispanic remains can be referred to the same Diaguitan culture as the northern Andine provinces; and to seek for the traces of the old Huarpes. Second, to carry on investigations in Chile from Santiago to Copiapo. In this region are many remains of the period of Inca domination, perhaps some traces of the Diaguitas, and probably some autochthonous substrata. Dr. Boman hopes to study folklore and to obtain anthropometrical measurements of pure Indians.

PIPES FROM RED RIVER MOUNDS.—Clarence B. Moore spent 5 months last winter investigating aboriginal mounds of the Red River in Louisiana, Arkansas and Texas. Three pipes of especial interest were among the finds. One of these, of earthenware with the stem and bowl in one piece, is 22 in. long. Another, of material which is probably compact limestone, represents a human figure on all fours. The legs were carefully carved. A third leg appears in relief in the rear of the figure. These two pipes were from a mound in southwestern Arkansas. The third pipe was from northwestern Louisiana. It is of earthenware and is $5\frac{1}{2}$ in. high. It represents a human figure seated on the lower limbs which extend backward parallel. "The figure holds a pipe in front of it, from the bowl of which ascends a passage through the figure to the mouth, which is open in such a manner that smoke emerges from the mouth when the pipe is in use."

BURIED CITY OF THE PANHANDLE.—There are some ruins near Ochiltree, Texas, which have been called the "Buried City of the Pan-

handle." They cover an area of about 70 acres. There are 12 mounds, some of them very slight. On each it is possible to distinguish the outline of an enclosure made of stone, suggesting the foundation of a building. Most of these outlines are rectangular in shape and vary from a few feet to more than 60 ft. in length, and have proportional widths. The stones are not laid as if for foundations, however, and there is no indication of any solid wall made from them at any time. With one exception, they face due east and west, the greatest length being in this direction. One was found by instruments to have the walls at right angles, and the others appear to have the same characteristic. They all appear to have had an opening in the center of the east wall. Excavations yielded remains of human bones, flint chips, pottery and charcoal.

The two theories usually put forward are that these are either Aztec or Spanish ruins. Prof. T. L. Eyerly, in the Archaelogical Bulletin sets these theories aside, saying that the stone outlines remaining could never have been foundations for houses and that the evidences are against great antiquity. The ruins are too far from the path of the early Spanish explorers to have been left by them. Professor Eyerly therefore inclines to a third theory, that the mounds were built by the Plains Indians. The pottery and flints found here uphold his contention. He goes on to say that these were solely burial mounds. Every one which has been

excavated has yielded human bones—one person to a grave.

THE PERUVIAN EXPEDITION OF 1912.—Prof. Hiram Bingham has gone to Peru again to continue the work of the Yale Peruvian Expedition of 1911. He hopes to pursue intensive studies in the region where

reconnoissance work was done on the previous expedition.

The work planned includes (1) the preparation of large-scale maps showing ancient and modern sites and the routes connecting the later Inca capital of Vitcos with the rest of Peru; (2) "The discovery and identification of the places mentioned in the Spanish chronicles and in the early accounts of Peru, particularly the places connected with the 35 years of Inca rule after the advent of Pizarro; (3) The study of the various diseases throughout the region visited and their geographical extent; (4) The study of the effect of coca chewing; (5) The study of the bone deposits in the Ayahuaycco Quebrada where human and other bones were found on the 1011 expedition; (6) The collection of osteological material not only in the Cuzco gravels but also in the mountains of vilcabamba; (7) The making of photographs and physical measurements of native types throughout the region visited, with particular reference to a study of the distribution of the more important groups; (8) The collection of material for a study of the distribution of types of cranial deformation; (9) A thorough investigation of the region round about and north from Cuzco and Pisac photographing, measuring, and describing whatever architectural material presents itself; (10) The continuation of the investigation of the ruins discovered on the expedition of 1911; (11) The penetration still farther into the jungles of the Pampaconas Valley and beyond, to see whether any more remains of Inca occupancy can be found."

GREAT SERPENT OF AUSTRALIA.—In a recent volume by Baldwin Spencer and F. J. Gillen on *Across Australia* there is depicted the "Wollunqua" or great serpent as designed by the Arunta tribe of Central Australia. We herewith reproduce this because of its interest in connection with the study of the serpent mounds and ceremonies found in widely separated parts of the world.



THE WOLLUNQUA (GREAT SERPENT) AS DESIGNED BY THE ARUNTA TRIBE,
CENTRAL AUSTRALIA

From Across Australia (Macmillan & Co.)

The Wollunqua emblem is drawn on a "remarkable mound of sandy earth" on a "keel-shaped" "narrow ridge" which indicates the backbone of the serpent. The serpent is traveling towards the east. The native tradition is that the serpent "halted at various places performing ceremonies and leaving spirit individuals behind, who are now born in the form of men and women. Finally it reared itself up into the sky, and with one gigantic jump into the ground, returned."

Whatever the significance of this mound, it is interesting to compare it with the Great Serpent Mound in Ohio, which is also located on a ridge and has an oval mound near the mouth, while this Australian mound has several nearly circular mounds around the head. The Ohio Serpent, however, is running towards the west, the opposite direction from the

Australian serpent.

ARCHÆOLOGICAL SURVEY OF MAINE.—Prof. Warren K. Moorehead spent the summer in Maine working on the archæological survey of the state which has been undertaken by Phillips Academy, Andover, Mass. In discussing the work of the summer, Professor Moorehead calls attention to the fact that most of the larger museums are poorly supplied with archæological material from New England, not so much because such material is really scarce, as because the men in the museums have spent their time and energies in work in the south and west. New Hampshire and Rhode Island have had little archæological work done in them, but probably such work would well repay the investigators. The archæological material is not so readily noticeable in New England as in other parts of

the country—there are no great mounds, no complicated earthworks, no ruined buildings, in a word there is not the picturesqueness and romance that there is in the ruins of the southwest. As a result, men with the money to spend have not been attracted to New England as a field of

archæological research.

Early in the year, after the trustees of Phillips Academy had made an appropriation for an archæological survey of Maine, Professor Moorehead sent Mr. Charles A. Perkins to hunt up Indian camp sites and burial places in the state. About the middle of May, Professor Moorehead himself went to Maine. In the region of Lakes Chamberlain, Eagle, and Chesuncook he found 15 camp sites, but on the Allagash River found few evidences of Indian occupation.

The expedition proper set out in June. The first digging was done on land owned by Messrs. Fred and Benjamin Blodgett at Bucksport. Implements had been found there in the past and Mr. Willoughby of the Peabody Museum at Harvard had excavated near by and written up his

work.

At Orland, at the head of navigation on the Narrimissic River, they uncovered 27 ancient graves. They varied from 8 in. to 2 ft. in depth but many had been disturbed by cultivation. No traces of human bones were found, indicating the great age of the burials. Even some of the implements had begun to disintegrate. Under a barn floor a number of finds were made.

Five miles further up stream from Orland is Lake Alamoosook where a dozen places were excavated. Much bright red ochre paint was found in the gravel at this point. A number of undisturbed graves 2 or 3 ft.

below the surface were opened.

Something like 400 specimens have been discovered in the course of the work. The culture is probably pre-Algonquin—no grooved axes occur in the graves. "The grooved axes found on the surface do not exhibit signs of disintegration. Many of the grave specimens are already crumbling, and no sane person will believe that a stone tool will disintegrate before a considerable period of time. The graves contain a prodigious number of egg-shaped plummets, called by the local collectors 'sinkers.' There are also in these graves the most beautiful slate spears, hollowed and fluted gouges. The slate spears are not common on the surface in New England, even in this region, and are almost unknown in Massachusetts and Connecticut."

A section of the party was sent to Sargentville to make preliminary observations. An interesting burial was found, whether early colonial or pre-historic could not be determined on the spot. A skeleton of a person 14 or 15 years old was uncovered, together with a large copper plate, copper beads and pieces of buckskin massed about the lower jaw and chest. Two or three hundred white beads strung on thin buckskin thongs were also found.

